



## Product Data Sheet & General Processing Conditions

### ESD A 400 Polystyrene (PS) ESD Protection Static Dissipative

#### PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Specific Gravity	1.09	1.09	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0040 - 0.0060 in/in	0.40 - 0.60 %	D 955

#### MECHANICAL

Impact Strength, Izod notched 1/8 in (3.2 mm) section	1.0 ft-lbs/in	53 J/m	D 256
unnotched 1/8 in (3.2 mm) section	5.0 ft-lbs/in	267 J/m	D 4812
Tensile Strength	3000 psi	21 MPa	D 638
Tensile Elongation	3.0 - 6.0 %	3.0 - 6.0 %	D 638
Tensile Modulus	0.30 x 10 <sup>6</sup> psi	2068 MPa	D 638
Flexural Strength	5500 psi	38 MPa	D 790
Flexural Modulus	0.35 x 10 <sup>6</sup> psi	2413 MPa	D 790

#### ELECTRICAL

Volume Resistivity	1000 - 9.9E+09 ohm.cm	1000 - 9.9E+09 ohm.cm	D 257
Surface Resistivity	1.0E+5 - 9.9E+11 ohm/sq	1.0E+5 - 9.9E+11 ohm/sq	D 257
Surface Resistance	1.0E+4 - 9.9E+10 ohm	1.0E+4 - 9.9E+10 ohm	ESD STM11.11
Static Decay MIL-PRF-81705D, 5kV to 50 V, 12% RH	< 2.00 s	< 2.00 s	FTMS101C 4046.1

#### PROPERTY NOTES

Data herein is typical and not to be construed as specifications.

Unless otherwise specified, all data listed is for natural or black colored materials. Pigments can affect properties.

#### GENERAL PROCESSING FOR INJECTION MOLDING

	English	SI Metric
Injection Pressure	10000 - 15000 psi	69 - 103 MPa
Melt Temperature	410 - 480 °F	210 - 249 °C
Mold Temperature	100 - 150 °F	38 - 66 °C
Drying	2 hrs @ 180 °F	2 hrs @ 82 °C

#### PROCESSING NOTES

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This information is intended to be used only as a guideline for designers and processors of modified thermoplastics. Because design and processing is complex, a set solution will not solve all problems. Observation on a "trial and error" basis may be required to achieve desired results.

Data are obtained from specimens molded under carefully controlled conditions from representative samples of the compound described herein. Properties may be materially affected by molding techniques applied and by the size and shape of the item molded. No assurance can be implied that all molded articles will have the same properties as those listed.

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